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### Auditory Hallucinations, Not Inherently Bad

Auditory hallucinations have, for the longest time, been identified as clinical symptoms of the most severe forms of mental illness. Typically associated with schizophrenia and other forms of psychotic illness, hallucinations are, in Western culture, considered by both medical professionals and laypeople to be characteristic of insanity. They are dangerous and distracting--“voices” characteristic of hallucination can compel individuals who experience them to release their inhibitions and become a danger to themselves or others.

Within the past decade, however, there has been a reassessment of the impact of auditory hallucinations on the individuals who experience them, leading to a collective realization: auditory hallucinations are not only more prevalent than originally thought, but they are also present in individuals with and without diagnoses of mental illness (Beaven, Read, & Cartwright, 2011). New research has even found that there are many ways to treat auditory hallucinations, the best of which do not try to eliminate them through use of medication, but instead treat them with importance, as a “survival strategy--a sane reaction to insane circumstances” (Longden, 2013). Auditory hallucinations may be a mysterious and alarming part of the human experience, but they are one that research must still strive to understand, especially when conventional techniques for treatment can be more damaging than helpful.

Hallucinations are defined by the fourth Diagnostics and Statistics Manual as “a sensory perception that has the compelling sense of reality of a true perception but that occurs without

external stimulation of the relevant sensory organ.” Auditory hallucinations occur when an individual experiences sounds or voices not experienced by other present individuals. Within psychiatry, hallucinations have classically been seen as nothing more than symptoms to be treated, most often through the use of medications (Longden, 2013). Interestingly, medications are not always effective in treating auditory hallucinations.

To understand how to address auditory hallucinations, it is first important to understand from where these experiences originate. Even after years of research, it remains unclear where these hallucinations come from, or what exactly causes them. By comparing the brain function of individuals with and without schizophrenia, however, researchers have found that patients who experience auditory hallucinations have neither hearing deficiencies nor advantages. Instead, the primary auditory cortex of a patient experiencing an auditory hallucination appears to be focused on processing internal acoustic information at the cost of being able to process external information received through the auditory nerve (Ford et al., 2009). Other studies have found that those who experience auditory hallucinations show heightened activity in Broca’s area, an area in the frontal lobe associated with language production (Brunelin, et al., 2012).

Interestingly, the predisposition toward auditory hallucinations is not exclusively associated with mental illness. Researcher have found that susceptibility to hearing sounds or voices not experienced by others may, in fact, be experienced on a continuum (Rotkiewicz, 2004). As a result, some individuals, including musicians, may be more likely to experience auditory hallucination (a trait useful to someone who needs to “hear” different musical combinations in order to compose a song) than other individuals, such as mental health professionals. Due to this predisposition, it may be the case that both brain structure and brain-

use play a role in an individual's reception of auditory stimuli unexperienced by others (Rotkiewicz, 2004).

Classically, auditory hallucinations have been associated with mental illness, drug use, and brain injury, such as stroke (Webster, 2015). They are categorized as an abnormal occurrence, necessitating medical treatment. Research such as this, though, challenges a previously held belief that auditory hallucinations are exclusively experienced by individuals with brain "deficits."

Auditory hallucinations are not unique to individuals with schizophrenia or other psychotic illnesses. The experience of hearing voices or sounds not experienced by others is significantly more common than was previously thought. Auditory hallucinations are, in fact, relatively prevalent in normative populations (Beaven, Read, & Cartwright, 2011). In fact, some research suggests that a majority of people over the age of 60 report seeing or hearing a life partner after that loved one has passed away, and international surveys report that approximately "one in eight people experience auditory hallucination at least once in their life" (Read, 2016). Auditory hallucination is beginning to be considered a part of the human experience not necessarily indicative of any sort of pathology.

For years, auditory hallucinations were treated one way only: through the prescription of medications that end up limiting emotion and expression. These medications can be physically draining for patients, and are often very hard to prescribe in the correct proportions. Schizophrenia patients, of whom 50% to 70% experience auditory hallucination even whilst taking antipsychotic medication, run the risk of losing a great deal of affect as a result of medication side effects, without finding relief from the distress caused by their "voices" (Brunelin, et al., 2012). Besides the fact that antipsychotic medications often do not help to limit

auditory hallucinations, psychotic patients may be unwilling or unable to consistently adhere to a medication schedule. Therefore these drugs do not always provide long-term solutions to delusions associated with hallucination.

While medication-based approaches are most ubiquitous, there do exist other effective treatments for auditory hallucinations. Repetitive transcranial magnetic stimulation (rTMS) is a relatively new treatment, which involves targeting magnetic signals at affected parts of the brain. This treatment has been shown to reduce auditory verbal hallucinations (Brunelin et al., 2012). Sound therapy (or the administration of an external auditory experience meant to counteract the inner stimulation) has also been used to combat auditory hallucinations, and in a few case studies has been found to significantly decrease the number and intensity of auditory hallucinations experienced by individuals with schizophrenia and schizoaffective disorders (Kaneko, Oda, & Goto, 2010).

Finally, for the past decade, behavioral therapy has been a growing field in the treatment of auditory hallucinations (Buffam et al., 2009). We may be better able to treat the negative effects of auditory hallucination if we view them not as a danger, but as a source of insight. Eleanor Longden (2013), a psychologist and someone who has personal experience with auditory hallucination, presents auditory hallucinations not as dangerous pathology, but instead as a part of the human experience. Although concerned when she began to hear “voices” of her own, she did not feel immediately threatened by her experience. She only found relief from her hallucinations, which became quite severe, once she began a behavioral therapy that allowed her to frame her “voices” not as a threat to her, but instead as “a source of insight to her solvable emotional problems.” In some studies, behavioral therapy has been met with a 67% cessation of voices instructing individuals to harm themselves or others, and reports that 96% of the

individuals with schizophrenia involved in the study found the therapy helpful (Buffam et al., 2009).

One of the most novel treatments for auditory hallucination is to stop treating it as an ailment, and begin treating it as part of the human experience (Read, 2016). Instead of trying to dull hallucinations with medication or other therapies, it may be beneficial to begin listening to the meaning behind these hallucinations, viewing them as potentially valuable to the individual experiencing them. Auditory hallucinations are not necessarily negative, and can sometimes be a form of treatment themselves. Dr. Oliver Sacks, a neurologist, describes his experience with a patient, called “Mrs. OC,” who begins to miss the once frightening auditory hallucinations caused by her stroke after she realizes that they are not simply oppressive music, but Irish ballads from her childhood, sung to her by her mother (Webster, 2015). By normalizing this woman’s experience, Sacks is able to turn a scary experience into a comforting one. Other cultures also do a good job of normalizing this experience. Maori culture, for example, identifies auditory hallucinations as entirely normal, and a healing part of the mourning process (Read, 2016). Perhaps the best way to address the damage of auditory hallucination is to normalize this human experience.

The fading medical understanding of auditory hallucinations identifies them as a symptom of illness or drug use. However, this understanding may become nothing more than an unnecessary pathologization of a human experience. By reframing the common understanding of what auditory hallucinations are and how they affect individuals who experience them, treatment can often become less upsetting and more effective. While auditory hallucinations may be distressing to those who experience them as well as those who seek to treat them, it is important to recognize the insight they can bring to an individual’s healing process. A more flexible

understanding of this phenomenon may serve to show that auditory hallucinations need not be considered a debilitating condition to be suppressed at all costs.

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